Gulf of Mexico Harmful Algal Bloom Bulletin

4 August 2005

National Ocean Service

National Environmental Satellite, Data, and Information Service

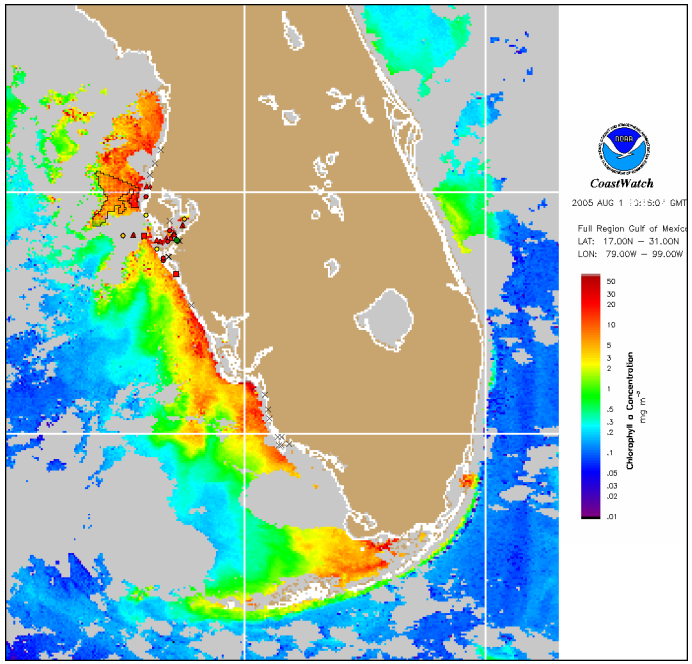
Last bulletin: August 1, 2005

Conditions: A harmful algal bloom has been identified from northern Pinellas to northern Sarasota County. Patchy low impacts are possible from central Pinellas to northern Sarasota County through Monday, with patchy moderate impacts possible in the afternoons. Very low impacts are possible in northern Pinellas County. Dead fish have been reported in the past few days from Southern Pinellas to northern Manatee County.

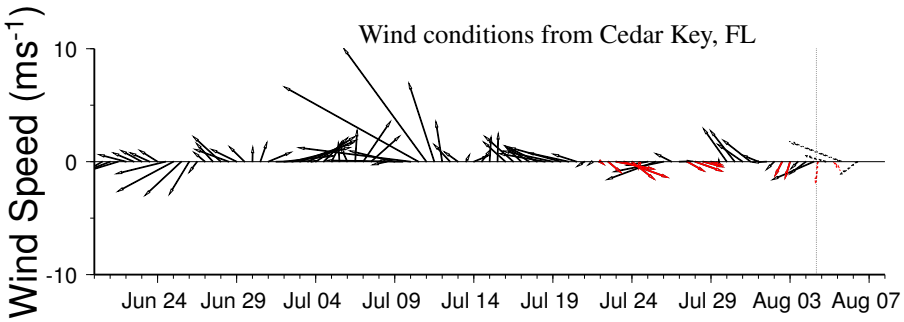
Analysis: The current bloom persists from Pinellas to Sarasota County. It has also been confirmed onshore in southern Pasco County, with present and very low cell counts of *K. brevis* reported August 2 near Anclote Key. Samples onshore in Citrus and Hernando County do not indicate the presence of *K. brevis*. However, high chlorophyll levels persist along the shore from Pinellas to Citrus County (to approximately 28°47'N), averaging over 15μg/L with patches up to 40μg/L. The bloom is mixed along its northern edge, making the northern extent of *K. brevis* presence difficult to determine via satellite. Other species of algae and diatoms have been identified as far north as Homosassa, in southern Citrus County. Chlorophyll levels remain elevated offshore Pasco County, and are likely to contain *K. brevis*, but light winds are unlikely to bring any effects onshore through Monday. Reports of discolored water and dead fish offshore Pinellas, Pasco, and Hernando Counties are possible. Slight northern transport of the bloom is possible through Monday.

Patches of elevated chlorophyll levels (10-15μg/L) have been detected via satellite imagery alongshore from Venice to Marco Island. Samples in Collier County, from Barefoot Beach to southern Marco Island indicate the presence of diatoms. Samples from July 26 indicate no *K. brevis* south of Venice. This is a nonharmful bloom likely caused by resuspension associated with hurricane activity in early July.

-Stolz and Fenstermacher

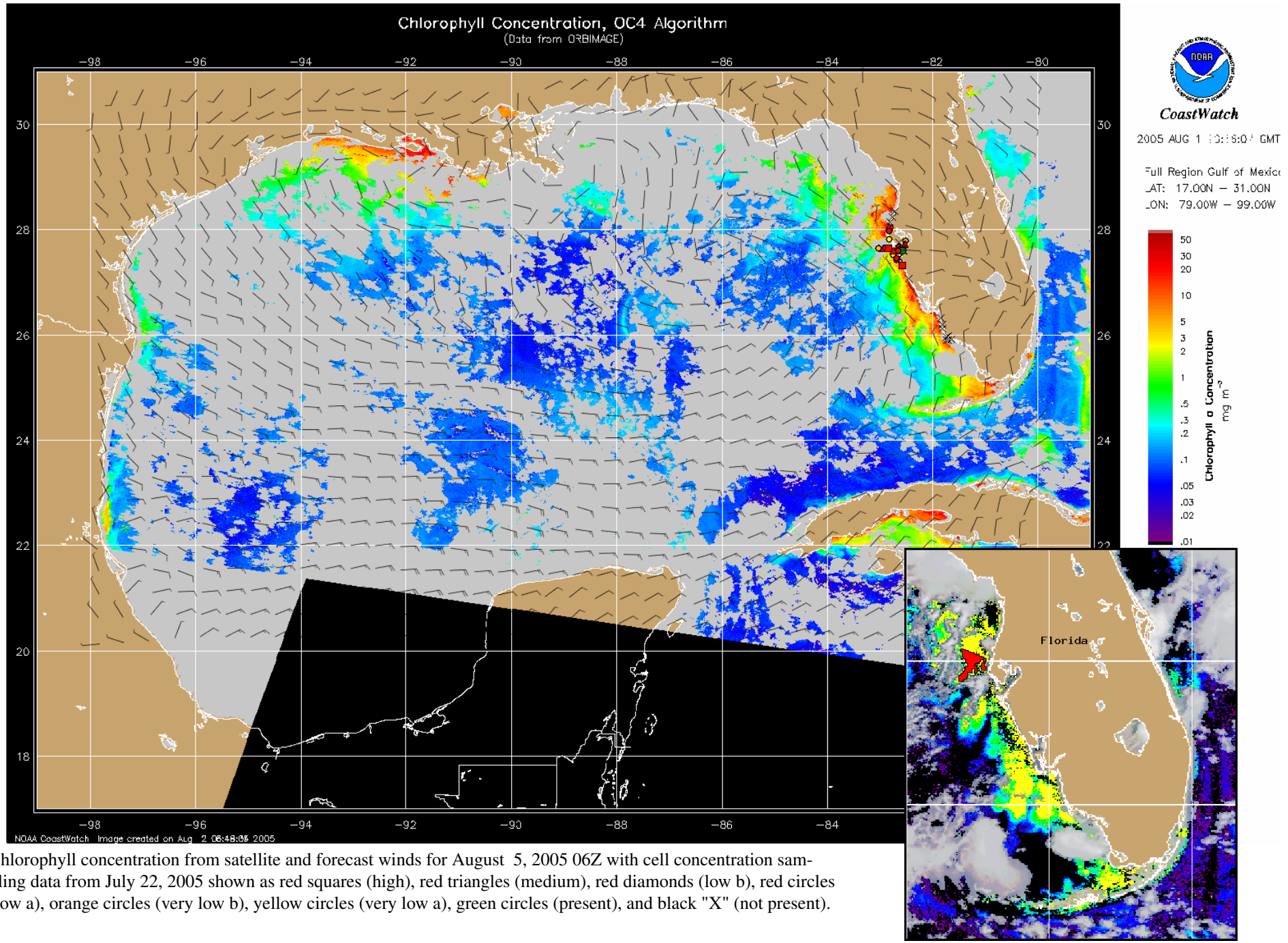


Chlorophyll concentration from satellite with HAB areas shown by red polygon(s). Cell concentration sampling data from July 22, 2005 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).



Wind speed and direction are averaged over 12 hours from measurements made on buoys. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

Winds light (5 knots, 3 m/s) and variable today through Saturday, becoming westerly each afternoon at 5-10 knots (3-5 m/s). Northeasterly winds Saturday night. Southeasterly winds Sunday and Monday, becoming westerly each afternoon at 5-10 knots (3-5 m/s).



Chlorophyll concentration from satellite and forecast winds for August 5, 2005 06Z with cell concentration sampling data from July 22, 2005 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).

Blooms shown in red (see p. 1 analysis)

Wind conditions from Venice Pier, FL